

### **REMARKS**

Applicants have carefully reviewed and considered the Office Action mailed on March 24, 2008, and the references cited therewith.

Claims 1, 4, 5, 8, 9, 10, 12, 17, 19, 21, 25 and 31 are amended, claims 2, 3, 7, 13, 14, 18, 24, 27 and 33 are canceled; as a result, claims 1, 4-6, 8-10, 12, 15-17, 19, 21-23, 25-26 and 28-32 are now pending in this application.

#### **U.S.C §103 Rejection of the Claims**

Claims 1, 3-10, 12-19, and 21-23 were rejected under 35 U.S.C §103(a) as being unpatentable over Davidson et al. (U.S. Patent 6,246,345) in view of Hu et al. (U.S. Patent 6,745,162).

Applicants respectfully traverse the rejection of claims 1, 4-6, 8-10, 12, 15-17, 19, and 21-23.

Claims 1, 3-10, 12-19, and 21-23 are respectfully asserted to distinguish over Davidson and Hu references. In column 5, lines 18-21 Davidson discloses shaping of quantization noise by using a masking threshold obtained using a psychoacoustic model, i.e. using a perceptual model. In contrast, amended independent claims 1, 5, 12, 17, 21, 25 and 31 recite shaping quantization noise by assigning quantization precision based on both band energy ratios and SMRs. Further, in column 5, line 25 Hu describes in step 412 that a psycho-acoustic modeler determines SMRs for the filtered source audio data, and then provides the SMRs to a bit allocator. In contrast, amended independent claims 1, 5, 12, 17, 21, 25 and 31 recite shaping quantization noise in spectral lines in each critical band using the estimated local gain, where the local gain of each critical band is estimated such that the difference between Signal-to-Mask ratio (SMR) and Signal-to-Noise ratio (SNR) in each critical band is substantially constant. Support for this can be found in page 5, lines 3-6 of the specification. Further, Hu describes at step 417 that the .DELTA.SMR is calculated for each sub-band. This value compares is the difference in SMR for a sub-band as compared to the SMR value for that sub-band in a prior iteration of the loop. In contrast, amended independent claims 1, 5, 12, 17, 19, 21, 25 and 31 recite “the shaping the quantization noise in spectral lines in each scale band factor by assigning quantization precision based on band energy ratios and SMRs” and not based on the difference between of SMR value

(i.e., .DELTA.SMR) of the current and the previous sub-bands. Support for this can be found in page 4, line 25 and page 6, line 20 of the specification.

Claims 4, 6, 8-10, 15-16, 19, 22-23, 26, 28-30 and 32 depends directly from independent claims 1, 5, 12, 17, 21, 25 and 31, so it should be allowable for the reasons presented above.

Applicants respectfully assert that Davidson and Hu references fail to support a *prima facie* case of obviousness because as mentioned above, the cited references fail to teach or suggest all of the elements of the Applicants' invention.

For the above reasons, claims 1, 4-6, 8-10, 12, 15-17, 19, and 21-23 should be found allowable over Davidson and Hu references and Applicants respectfully request that the rejection be withdrawn.

*Allowable Subject Matter*

Claims 11 and 20 were allowed.

Conclusion

Applicants have respectfully submit that the claims 1, 4-6, 8-10, 12, 15-17, 19, 21-23, 25-26 and 28-32 are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicants' attorney (603-888-7958) to facilitate prosecution of this application.

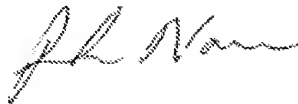
Respectfully submitted,

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